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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Docket Number (Optional) PRE-APPEAL BRIEF REQUEST FOR REVIEW 15227 **Application Number** I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for 10/051,567 January 18, 2002 Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR First Named Inventor January 3, 2007 Yoshiharu Hashimoto Signature Art Unit Examiner Typed or printed 2629 Srilakshmi K. Kumar Seth Weinfeld name Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided. I am the applicant/inventor. assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. Seth Weinfeld (Form PTO/SB/96) Typed or printed name attorney or agent of record. 516-742-4343 Registration number \_ Telephone number attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 January 3, 2007 NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Tradeamrk Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Applicant(s): Yoshiharu Hashimoto Examiner: Srilakshmi K. Kumar

**Serial No.:** 10/051,567 **Art Unit:** 2629

**Filed:** January 18, 2002 **Docket:** 15227

For: METHOD OF DRIVING A COLOR Dated: January 3, 2007

LIQUID CRYSTAL DISPLAY AND DRIVER CIRCUIT FOR DRIVING THE DISPLAY AS WELL AS PORTABLE ELECTRONIC DEVICE

WITH THE DRIVER CIRCUIT

**Conf. No.:** 3382

Mail Stop A.F. Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

### REMARKS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

Applicant is submitting the following remarks in support of the Request for Review filed concurrently with a Notice of Appeal on January 3, 2007. This Request for Review is regarding the final rejection of Claims 1-7, 39, 40 and 42 dated August 1, 2006. The Examiner's rejection is based upon 35 U.S.C. § 103 (a) in view of Chee et al, United States Patent No. 5,886,689 (hereinafter "Chee")

Applicant submits that Chee fails to teach, suggest or render obvious each and every limitation of the claims for the following reasons.

### Claim 1.

Claim 1 recites, *inter alia*, a method of driving a color display in a normal driving mode and a power saving mode, wherein in said power saving mode, voltages

corresponding to highly significant bit signals of said image display data are applied as display data signals to said data electrodes.

Chee does not teach that "voltages corresponding to highly significant bit signals of said image display data are applied as display data signals to said data electrodes"

Chee teaches that an image can be displayed on the LCD using a reduced gray-scale. Chee teaches that the reduced gray scale reduces the number of bits per pixel of the display. In the disclosed embodiment in Chee, the reduced gray scale includes a reduced scale of shades of gray using two-bit data signal. The reduced gray scale provides pixels which are black or while or 50%.

The Examiner has no basis for his statement that a reduced gray scale reduces the insignificant bits of the display. It appears that the Examiner is misunderstanding the reference. The reference does not teach any reduction of "insignificant bits". In fact, Applicant notes that the reference fails to teach or describe how the two bits are selected, i.e., bits used in reduced gray scale. The reference does not even suggest that the two-bit data signal is related to an original data signal. In contrast, the claimed invention used only the highly significant bits of the data signal for displaying the data in reduced power mode. Additionally, the Examiner has no basis for the statement that voltage is reduced to non-significant items. In power saving mode, the voltage is uniformly reduced to all items. Clearly, Chee's reduced gray scale does not cause the highly significant bits per pixel to be displayed.

### Claim 2.

Claim 2 recites, *inter alia*, essential information display mode, wherein a predetermined uniform voltage level, which corresponds to a predetermined color and which is independent from said image display data, is uniformly applied to all data electrodes on other region than at least a designated region for displaying the essential information.

## Chee fails to teach an "essential information display mode" or a "designated region".

The reference does not teach only displaying the required items, i.e., essential information display mode. The Examiner does not have any basis for displaying essential information or displaying the required items. Chee teaches that **all images** are treated the same.

The Examiner asserts that Chee, at Col. 5 lines 37-65, teaches this feature.

Nowhere in the identified section is there a teaching of the essential information display mode. The identified section describes a general reduced power saving mode, including an LCD back light off and LCD display off function. Additionally, the identified section describes a four-level power saving controller.

The four levels are (1) on, (2) standby, (3) suspend and (4) off. Furthermore, Chee teaches reducing the gray scale level for the **entire LCD**.

The reference teaches that power could be saved by completely shutting the display off, having the pixel clock slowed, displaying the images at a dimmed level or a reduced gray scale. None of the described power saving modes teaches displaying essential information.

In Chee, when the pixel clock is slowed, when the gray scale is reduced or when the images are dimmed, the change is applied to the **entire display**. In other words, none of the power saving modes in Chee includes an essential information display mode or region for displaying essential information. Chee teaches one display region whereas in the claimed invention there can be more than one display region.

# Chee fails to teach a level corresponding "to a predetermined color and which is independent from said image display data" in the essential display mode.

The Examiner asserts that Chee discloses that a uniform voltage level is applied which corresponds to a predetermined color (Col. 5 37-65) and is independent from the image display data Col. 7, 9-44. Applicant respectfully disagrees. The identified section does not even mention a predetermined color or any independence from the image display data. Once again, Chee fails to teach how the reduced gray scale bits are selected. Therefore, the reference does not teach that the color is independent from the image display data.

### Claim 6.

Claim 6 recites, *inter alia*, wherein at least a partial color display region in said color display is displayed in said power saving mode.

### Chee fails to teach a partial color display region in power saving mode.

Chee discloses a reduced gray scale mode, not a partial color display mode. Chee teaches a full color mode and a reduced gray scale mode. A partial color display mode is not equivalent to a reduced gray scale mode.

Claims 2-5 and 7 are patentably distinct from Chee based upon the aboveidentified analysis.

### **Conclusion**

Since Chee does not teach, suggest or render obvious each and every limitation of independent Claim 1-7, 39, 40, and 42, the rejection under 35 U.S.C. § 103 (a) is improper.

Respectfully submitted

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